



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/765,087

01/28/2004

Young Choi

45657

9814

1609

7590

08/10/2006

ROYLANCE, ABRAMS, BERDO & GOODMAN, L.L.P.
1300 19TH STREET, N.W.
SUITE 600
WASHINGTON,, DC 20036

EXAMINER

CAI, WAYNE HUU

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 08/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/765,087

Applicant(s)

CHOI ET AL.

Examiner

Wayne Cai

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-8 and 10-12 is/are rejected.
- 7) ☒ Claim(s) 3 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-12 are pending.

Response to Arguments

1. Applicant's arguments filed June 08, 2006 have been fully considered but they are not persuasive.

In response to applicant's arguments with respect to claims 1 and 2 at the last paragraph on page 9, and arguments with respect to claims 4 and 10 at the second full paragraph on page 12, the recitation that the phone has a camera and the third sensor is located on the connecting section has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

The Applicant further argues that neither Opela nor Mizuta discloses converting the mode of the rotation touch phone into the speakerphone mode when the first sensor detects the magnet, which represents that the folder is in the first state, and converting the mode of the rotation touch phone into the speakerphone mode when the second sensor detects the magnet, which represents that the folder is in the fourth state. The Examiner respectfully disagrees with the statement above because Mizuta clearly

Art Unit: 2617

teaches or suggests that the magnetic sensors (fig. 6, elements 111a-111c of Mizuta) are utilized to determine the state of the rotation touch phone (i.e., the first thru fourth state). Mizuta specifically teaches the first state is a state in which the folder is closed (fig. 3B of Mizuta), and the fourth state is a state in which it is similar to the first state with the internal display being outside (see fig. 3C of Mizuta). On the other hand, Opela discloses a wireless device (i.e., rotation touch phone) that could be used as a two-way radio or speakerphone in either the open configuration or the closed configuration (see paragraph 0026 of Opela). Since the rotation touch phone could be used as a speakerphone in the closed configuration (i.e., the first state), it is therefore obvious to one skilled in the art to modify Opela's speakerphone to be used when the rotation touch phone is also in the fourth state as described by Mizuta, the state is detected by the magnet sensor(s) 111a-111c. Thus, it would be appropriate to combine the two disclosures together and arrive at the present invention because it would be convenient for user to be able to use the speakerphone in different orientation.

In response to arguments with respect to claim 5, at page 15 of the Remarks, the Examiner further notes that the body of claim recites "utilizing at least one of the first and second display sections as the illumination source when the folder is in at least one of the second and third states", **but not** "an illumination source when photographing an object by detecting a position of folder in a rotation touch phone having a rotatable camera, and utilizing at east one of the first and second display sections as the illumination source when the folder is in at least one of the second and third states". A preamble is generally not accorded any patentable weight where it merely recites the

Art Unit: 2617

purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2 are rejected under 35 U.S.C. 102(e) as being anticipated by Mizuta et al. (hereinafter “Mizuta”, US 2003/0064758 A1).

Regarding claim 1, Mizuta discloses a method for detecting a folder position in a rotation touch phone having a camera, the rotation touch phone including a sensor section (fig. 6, elements 111a-c), a folder, a body, and a connecting section, the folder having a magnet (fig. 6, elements 204a & 204b), the sensor section including first, second and third sensors for detecting the magnet (i.e., sensors 111a-c), the first and second sensors being located on the body and the third sensor being located on the connecting section, the connecting section connecting the folder to the body, the folder

Art Unit: 2617

being movable from first, second, third and fourth states, the first state signifying a state in which the folder is initially closed (fig. 3B), the second state signifying a state in which the folder has been opened from the first state (fig. 3A), the third state signifying a state in which the folder has been rotated substantially 180 degrees from the second state (fig. 3A), the fourth state signifying a state in which the folder has been closed from the third state (fig. 3C), wherein the orientation of the folder with respect to the body in the fourth state is different that the orientation of the folder with respect to the body in the first state (figs. 3B & 3C), the method comprising the steps of:

- i) receiving a signal from the sensor section notifying that the sensor section detects the magnet (paragraphs 0105-0107);
- ii) deciding that the folder is in at least one of the first to fourth states, based on the signal input from the sensor section (paragraphs 0105-107).

Regarding claim 2, Mizuta discloses the method as claimed in claim 1 as described above, except for wherein step i) includes the steps of:

- a) transferring a signal notifying that the first sensor detects the magnet (paragraphs 0105-0107);
- b) transferring a signal notifying that the second sensor detects the magnet (paragraphs 0105-0107);
- c) transferring a signal notifying that the third sensor detects the magnet (paragraphs 0105-0107).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Opela et al. (hereinafter "Opela", US 2004/0204122 A1) in view of Mizuta.

Regarding claims 4, and 10, Opela discloses a method, and a controller for converting a mode of a rotation touch phone having a camera into a speakerphone mode by detecting a folder position, the rotation touch phone including a sensor section, a folder, a body, and a connecting section, the folder having a magnet and a bi-directional speakerphone, the sensor section including first, second and third sensors for detecting the magnet, the first and second sensors being located on the body and the third sensor being located on the connecting section, the connecting section having the camera and connecting the folder to the body, the folder being movable from first, second, third and fourth states, the first state signifying a state in which the folder is initially closed, the second state signifying a state in which the folder has been opened from the first state, the third state signifying a state in which the folder has been rotated substantially 180 degrees from the second state, the fourth state signifying a state in which the folder has been closed from the third state, wherein the orientation of the folder with respect to the body in the fourth state is different that the orientation of the

Art Unit: 2617

folder with respect to the body in the first state, the method comprising the steps of (see rejection of claim 1):

i) converting the mode of the rotation touch phone into the speakerphone mode when the first sensor detects the magnet, which represents that the folder is in the first state in which the folder is closed (paragraph 0026);

Even though Opela does not disclose ii) converting the mode of the rotation touch phone into the speakerphone mode when the second sensor detects the magnet, which represents that the folder is in the fourth state in which the folder is closed by being rotated from the third state. On the other hand, Mizuta discloses a foldable portable information terminal. Mizuta also discloses wherein the folder is in the fourth state in which the folder is closed by being rotated from the third state (figs 3A-C).

Hence, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Opela with Mizuta to arrive at the invention so that user would be able to utilize the second display in addition with the speaker phone function.

6. Claims 5-6, and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuta in view of Aagaard et al. (hereinafter "Aagaard", US 6,839,576 B2).

Regarding claims 5, and 11, Mizuta discloses a method, and a controller for utilizing first and second display sections as an illumination source when photographing an object by detecting a position of a folder in a rotation touch phone having a rotatable

Art Unit: 2617

camera, the rotation touch phone including a sensor section, a folder, a body, and a connecting section, the folder having a magnet and the first and second display sections, the sensor section including first, second, and third sensors for detecting the magnet, the first and second sensors being located on the body and the third sensor being located on the connecting section, the connecting section connecting the folder to the body and having the camera, the folder being movable from first, second, third and fourth states, the first state signifying a state in which the folder is initially closed, the second state signifying a state in which the folder has been opened from the first state, the third state signifying a state in which the folder has been rotated substantially 180 degrees from the second state, the fourth state signifying a state in which the folder has been closed from the third state, wherein the orientation of the folder with respect to the body in the fourth state is different that the orientation of the folder with respect to the body in the first state (refer to rejection of claim 1), the method comprising the steps of:

i) deciding that the folder is in at least one of the first to fourth states, when the sensor section inputs a signal notifying that the sensor section detects the magnet (paragraphs 0105-0107).

Mizuta, however, fails to disclose:

ii) utilizing at least one of the first and second display sections as the illumination source when the folder is in at least one of the second and third states.

In a similar endeavor, Aagaard discloses a multiple axis hinge assembly.

Aagaard further discloses ii) utilizing at least one of the first and second display sections

Art Unit: 2617

as the illumination source when the folder is in at least one of the second and third states (col. 4, lines 30-65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Mizuta's foldable portable information terminal by having the illumination source so that user could easily see information.

Regarding claims 6, and 12, Mizuta and Aagaard disclose the method, and the controller as claimed in claims 5, and 11. Even though the cited arts do not specifically teach or describe wherein step ii) includes the steps of: a) utilizing the second display section as the illumination source when the folder is in the second state; b) utilizing the first display section as the illumination source when the folder is in the third state. Since Aagaard does teach the controllable backlighting (col. 4, lines 45-56) using only one display, and Mizuta does teach first and second display (see fig. 6). Thus, it would have been obvious to one skilled in the art to combine the cited arts to design such that either the first or the second display could be used as the light source. One skilled in the art would modify as claimed so that user would be able to utilize the light source regardless the position of the phone.

7. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Junichiro et al. (hereinafter "Junichiro", Japan 2001-169166) in view of Mizuta et al. (hereinafter "Mizuta", US 2003/0064758 A1).

Regarding claim 7, Junichiro discloses a rotation touch phone comprising a folder, a body, and a connecting section, comprising:

Art Unit: 2617

- a camera adapted to take pictures for the rotation touch phone (i.e., a digital camera function);
- the folder being adapted to move from first, second, third and fourth states, the first state signifying a state in which the folder section is initially closed (see fig. 4 or fig. 10), the second state signifying a state in which the folder section has been opened from the first state (see fig. 9), the third state signifying a state in which the folder section has been rotated substantially 180 degrees from the second state (see figs. 1, 2, and 11. Also paragraph 0079), the fourth state signifying a state in which the folder section has been closed from the third state (fig. 11 or fig. 12), wherein the orientation of the folder with respect to the body in the fourth state is different than the orientation of the folder with respect to the body in the first state (i.e., fig 10 and fig. 4 orientation is different);
- a controller (element 51) adapted to receive a signal from the sensor section indicating that the sensor section detects the magnet (i.e., sensor 55); and decide that the folder section is in at least one of the first to fourth states, based on the signal input from the sensor section (i.e., to determine when the flip section 20 and flip section 20 are united or in the fourth state, then various of input could be performed via the touch panel 21).

Junichiro discloses the shank condition sensor 55 that has ability to detect the angle in which each of the closing motion shaft 31 and revolving shaft 32 of a shank 30

Art Unit: 2617

accomplish in order to recognize the sense which the body section 10 and the flip section 20 accomplish. See paragraph 0088. Therefore, it would have been obvious to one skilled in the art that this particular sensor (i.e., third sensor) must be located on the connecting section in order to detect the physical position of the flip section 20 with respect to the body section 10.

Junichiro, however, fails to disclose:

- first and second display sections adapted to input and output information for the rotation touch phone;
- a sensor section adapted to detect a position of a magnet disposed on the folder section, the sensor section including first, second, and third sensors, the first and second sensors being located on the body and the third sensor;

In a similar endeavor, Mizuta discloses a foldable portable information terminal.

Mizuta further teaches

- first (main display 202) and second display (secondary display 206) sections adapted to input and output information for the rotation touch phone (fig. 6, and its descriptions);
- a sensor section adapted to detect a position of a magnet disposed on the folder section (magnetic sensors 111a-111c are disposed on the lower unit 100), the sensor section including first, second, and third sensors, the first and second sensors (i.e., magnetic sensors 111a and

Art Unit: 2617

111b) being located on the body (i.e., lower unit 100) and the third sensor (i.e., magnetic sensor 111c);

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a first and second display with multiple sensors in order to detect the position of the flip section with respect to the body section, and therefore, carry out the particular function or operation.

Regarding claim 8, Junichiro and Mizuta both disclose the apparatus of claim 7 as described above. Mizuta also discloses wherein the controller is further adapted to transfer a signal indicating that the first sensor detects the magnet (paragraphs 0105-0107); transfer a signal indicating that the second sensor detects the magnet (paragraphs 0105-0107); and transfer a signal indicating that the third sensor detects the magnet (paragraphs 0105-0107).

Allowable Subject Matter

8. Claims 3 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 2617

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

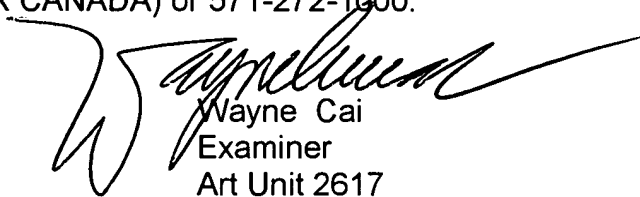
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wayne Cai whose telephone number is (571) 272-7798. The examiner can normally be reached on Monday-Friday; 9:00-6:00; alternating Friday off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on (571) 272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Wayne Cai
Examiner
Art Unit 2617



ELISEO RAMOS-FELICIANO
PRIMARY EXAMINER